



DS0068

SOP-POP Multi-Link



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Problem Definition

<i>Problem Definition</i>	CCDA
<p>ACME Co. is a distributor of sporting fan goods and memorabilia. Purchase Orders are placed to the memorabilia manufacturers, and when received need to be allocated to sales orders.</p> <p>The current Dynamics GP functionality allows a Sales Line to be associated with a single Purchase Order line, and that PO Line must completely fulfill the ordered quantity. The PO Line could be linked to one or more Sales Lines, but on each one of those it must completely fulfill the required quantity.</p> <p>ACME needs to be able to associate a single PO Line with multiple sales lines, in a manner that allows them to completely or partially fulfill the sales quantity. It is the second part of that statement that is not supported by GP—the ability to link a PO Line to a partial quantity of a sales line.</p> <p>Also, they need the ability to link multiple PO Lines to the same sales line, so that as different purchase orders are placed, or as a single PO is partially received, quantities can be allocated to one or more sales lines.</p> <p>The customization should have the following features:</p> <ul style="list-style-type: none"> • When creating a PO the user can link the PO Line to one or more sales lines, and specify the quantity to be allocated to each sales line • When receiving a PO Line, the user can view existing SO Line links, change allocation quantities, delete links, or create new SO Line links. • When the PO Receipt is posted, the SO Lines will be updated by adjusting the Quantity Backordered, and Quantity to Invoice. NOTE: the software will be “aware” of the SOP Document Type setting for Separate Fulfillment Process, and when this setting is ON 	

(marked) the PO Receipt will result in the Quantity To Invoice being adjusted, but not the Quantity Fulfilled. Otherwise, both Quantity to Invoice and Quantity Fulfilled will be updated (this is how Dynamics GP normally functions).

ACME will use the SOP Separate Fulfillment process.

An additional element considered in the modification is that ACME will be using Binary Stream's Document Splitter module. Since the new linking functionality is not part of the normal GP SOP-POP linking, Binary Stream's software will not recognize that links exist. The new SOP-POP linking module will integrate into Binary Stream so that split documents maintain existing SOP-POP links.

Solution Overview

<i>Solution Overview</i>	CCDA
<p>The core issue that needs to be solved is that GP does not support linking a single Sales line to multiple purchase order lines. The SOP-POP Linking functionality in GP is primarily supported by a single database table called SOP-POP Link (SOP60100), and the design of this table can only record a link between a sales line and a single purchase order line.</p> <p>Since there is no way to modify this table, or the existing SOP-POP link functionality in a way that would support the required linking, the solution described replaces GP's SOP-POP Linking functionality completely.</p> <p>The new functionality will be referred to as SOP-POP Multi-Link to distinguish it from the normal GP SOP-POP Linking.</p> <p>The SOP-POP Multi-Link functionality breaks into 4 areas: Sales Transaction Entry, Purchase Order Entry, Receiving's Transaction Entry, and Reporting. In each location the new software will replace the GP functionality (such as being able to line the entire SOP line quantity to a PO line), and provide new functionality (such as linking an SOP Line to multiple PO lines).</p> <p>A specific example of how existing functionality will be replaced is seen with the PO Commitment Icon  that appears on the Sales line when the quantity is linked to a PO. Since we will not be using the GP SOP-POP Link table, GP will not "know" the SOP Line is linked to a PO, and it will not display the icon. The SOP-POP Multi-Link code will cause the window to display the commitment icon anyway, by checking the new SO-PO links table as the window fills.</p> <p>An additional enhancement will automatically change the Batch ID on sales orders when they are fulfilled by the receipt of a linked PO Line.</p> <p>Details of the proposed modifications for each window are described in the following sections.</p>	

Design Features

<i>Sales Transaction Entry</i>	CCDA
<p>In the Sales Transaction Entry window, the PO Commitment for Sales Document and the PO Assignment for Sales Document lookup windows will be replaced with new windows that can support linking a single sales line to one or more purchase order lines.</p> <p>Links can be created on Orders where a line has a Qty To Backorder. NOTE: the linking functionality will only be support on Sales Orders.</p> <p>When an Order is linked to a PO, and the PO is received, the Order line is automatically updated and the Qty To Backorder is decreased by the receipt quantity, and the Qty To Invoice is increased by the receipt quantity. Depending on how the Document Type is set up, the system might also automatically increment the Qty Fulfilled. The inventory is also automatically allocated.</p> <p>When a Backorder is linked to a PO, and the PO is received, no changes are made to the backorder line, and the inventory is not allocated. GP does not support allocating inventory to a Backorder. Since allocating the inventory from a PO Receipt to a specific sales line is one of the requirements, this customization will prevent transfer of Order lines to a Backorder, and also prevent opening the SOP-POP Linking window from a Backorder.</p> <p>From a sales line with a Qty to Back Order, the user will click the Commitments button  to open the SOP-POP Linking window.</p>	

SOP-POP Linking X

Done

Item Number

Description

Base U of M

Qty Backordered

Qty Remaining

PO Number	Vendor ID	Status	Avail Qty	Assigned Qty
PO2081	ACETRAV0001	Released	10	1

Total

= Lookup Button

Field	Function
Item Number	Displays the item number from the Sales Line
Description	Displays the description from the Sales Line
Base U of M	Displays the Base Unit of Measure for the Item. All quantities will be displayed in the Base Unit for the Sales Order Line, and the Purchase Order Lines.
Qty Backordered	Shows the total quantity from the Qty to Back Order field on the sales line
Qty Remaining	Shows Qty Backordered minus Total Assigned Qty
PO Number	New PO Lines must be selected by clicking the Lookup button. The PO Number field is not editable. The PO Number column header will be a Zoom field, which will allow the user to open the selected PO in PO Inquiry
Vendor ID	Displays the Vendor ID for the PO

Status	Shows the status of the linked PO Line	
Avail Qty	Shows the available or unassigned quantity, on the PO Line. This field will always show the current Avail Qty, which may change as users add or remove links to a PO Line.	
Assigned Qty	This is the only editable field in the scrolling window. The user can enter or change the quantity to assign to the sales line from the selected PO Line. The Assigned Qty cannot be changed so that it exceeds the available PO Line qty, or so that it exceeds the required SOP Line qty.	

A link can be deleted by selecting it, then clicking Edit >> Delete Row.

NOTE: This window does not show the quantity available on the PO Line since that number is always changing. It is displayed on the PO Selection window.

GP normally exhibits the following behaviors when a sales line is linked to a PO:

- Shows Commitment icon when links are present
- Does not allow changing SOP Line Quantity
- Does not allow Deleting a document with commitments
- Does not allow Voiding a document with commitments
- Does not allow Deleting a line with commitments

With the new SOP-POP linking functionality, the Sales Transaction Entry window will provide the same functionality described above, with these changes:

- It will prevent changing Quantity below linked Quantity, unless user first breaks links. Otherwise it will allow quantity increases and decreases when links are present.
- The Purchase button will be disabled. Purchase orders must be created manually, then linked to sales lines.

NOTE: the user will not be allowed to change the Assigned Qty if the linked PO is open by any user in the PO Entry window.

Linking & Sites: This window will also display the SITE of the SOP Line.

PO Selection **CCDA**

Clicking the Lookup button on SOP-POP Linking will open the PO Selection window:

X	PO Number	Hold	Required Date	U of M	Qty Avail	Qty Assigned
X	PO2080		4/12/2017	Each	5	4
	PO2093		4/15/2017	Each	10	

The window will show all purchase order lines that have any quantity available that can be linked to the sales line.

Field	Function
Sort By	The default option will be by PO Number. The other option will sort by Required Date.
Item Number	Displays the Item Number from SOP-POP Linking
Description	Displays the Description from SOP-POP Linking
Scrolling Window	Displays fields from the purchase order lines, based on the Sort By selection.

Qty Avail	PO Line quantity that is not already assigned to sales lines.	
Qty Assigned	<p>If user marks the line (shown with the X), the Qty Assigned will default to the Qty Remaining, or the Qty Avail if there is not enough to meet the entire Qty Remaining. The user can then adjust the quantity if desired.</p> <p>If the user clicks first into the Qty Assigned field, it will stay zero. If the user then types in a quantity (up to the Qty Avail), the X will automatically mark. In this way the user can assign a specific quantity from the PO Line.</p>	
Done	Closes the PO Selection window and returns to the SOP-POP Linking window where the new links will be displayed.	
Auto-Assign	Based on the sort order of the PO Lines (by PO Number, or by Required Date), the system will auto-assign PO Line quantities to the Sales Line. It will assign as many PO Lines as needed to meet the Required Quantity, or until there are no more available quantities.	
Unassign	Removes all of the currently display links, regardless of whether they were manually created or via the Auto-Assign button. This just affects the new links that were being built in this window, and has no impact on existing links displayed in the SOP-POP Linking window.	
<p>NOTE: new links are created immediately in PO Selection, as soon as the line is marked (X), or the line quantity is changed, or Auto-Assign is clicked. This ensures that if two users are working at the same time, PO Line quantities immediately become un-available to another user as soon as they are assigned to a Sales Line.</p> <p>NOTE: the user will not be allowed to create or edit links to a PO if the PO is open by any user in the PO entry window.</p> <p>Linking & Sites: This window will also display the SITE of the sales line, and the SITE of each PO Line. If the Sales Line has no links, all available PO lines will be displayed regardless of SITE. If the user selects a PO Line that has a different site than the SOP Line, the system will</p>		

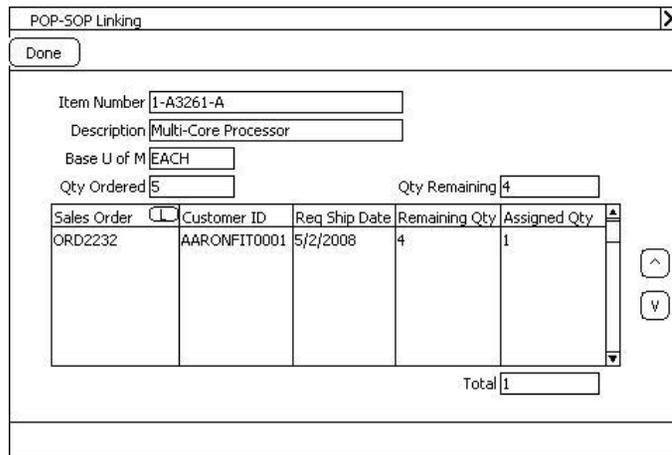


<p>automatically change the SITE on the SOP Line. This will also automatically adjust any quantity allocations in the affected sites. If the SOP line is already linked to a PO Line, that “locks” the item-site relationship for that line. If additional PO Lines need to be linked, the PO Selection window will only show PO Lines for the existing item-site.</p>	
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Purchase Order Entry	CCDA
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In the Purchase Order Entry window the Sales Commitments for Purchase Order window, and the Sales Assignments for Purchase Order lookup window, will be replaced with new windows that can support linking a PO line to a partial quantity of a sales line. In this area GP already allows linking a PO Line to more than one Sales Line, but it requires linking to the entire quantity of the sales line. The main change here, then, is that the user will now be able to link to a specific quantity on the sales line specified by the user.

From a purchase order line, the user will click the Commitments button  to open the POP-SOP Linking window.



 = Lookup Button

Field	Function
Item Number	Displays the item number from the PO Line
Description	Displays the description from the PO Line
Base U of M	Displays the Base Unit of Measure for the Item. All quantities will be displayed in the Base Unit for the Purchase Order Line, and the

	Sales Order Lines.	
Qty Ordered	Shows the Quantity Ordered from the PO Line	
Qty Remaining	Shows Qty Ordered on the PO minus Total Assigned Qty	
Sales Order	This field is not editable. The user must click the Lookup to select a sales order. The Sales Order column header will be a Zoom field, which will allow the user to open the selected document in Sales Transaction Inquiry	
Customer ID	Displays the Customer ID for the sales document	
Remaining Qty	Displays the Sales Order line Qty to Backorder less any existing assigned quantities.	
Assigned Qty	User can enter or adjust the quantity to assign to the sales line from the selected PO Line.	
Total	Shows the total quantity assigned	
^ and V buttons	Change the Receipt Priority, or which sales orders get fulfilled first in the case of a partial receipt. NOTE: as discussed below in Receivings Transaction Entry, the user can manually allocate receipt quantities to specific sales orders.	

This window shows the current links for a PO Line. Clicking the Lookup button opens Sales Order Selection (next section), from which the user can add new PO Line assignments.

GP normally exhibits the following behaviors in Purchase Order Entry with linked Sales Orders:

- Commitment icon is displayed
- Qty Ordered can be changed up and down, but not below the linked quantity
- Qty Canceled can be changed up and down, but Qty Ordered minus Qty Canceled cannot be less than the linked quantity.
- PO Line cannot be deleted if commitments are present

This same functionality will be present with the SOP-POP Multi-Link code.

NOTE: the user will not be allowed to make changes to the Assigned Qty if the linked Sales Order is open in Sales Transaction Entry by any user.

Linking & Sites: this window will also display the Site of the PO Line.

Sales Order Selection	CCDA																																	
<p>This window allows the user to “apply” a PO Line to one or more sales lines. See the description in PO Selection for details on how the window works (i.e. marking the X, auto-assign, etc).</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p style="text-align: right; margin: 0;">Sales Order Selection ✕</p> <p style="margin: 0;"> <input type="button" value="Done"/> <input type="button" value="Auto-Assign"/> <input type="button" value="Unassign"/> </p> <p style="margin: 0;">Item Number <input type="text" value="1-A3261-A"/></p> <p style="margin: 0;">Description <input type="text" value="Multi-Core Processor"/></p> <p style="margin: 0;">Quantity <input type="text" value="5"/> Base U of M <input type="text" value="EACH"/></p> <p style="margin: 0;">Customer Class <input type="text" value="SOUTH"/></p> <p style="text-align: right; margin: 0;">Qty Remaining <input type="text" value="1"/></p> <table border="1" style="width: 100%; border-collapse: collapse; margin: 0;"> <thead> <tr> <th style="width: 5%;">X</th> <th style="width: 20%;">Sales Order</th> <th style="width: 15%;">Req Ship Date</th> <th style="width: 15%;">Cancel Date</th> <th style="width: 10%;">U of M</th> <th style="width: 10%;">Qty Remaining</th> <th style="width: 10%;">Qty Assigned</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">X</td> <td>STORD2241</td> <td>4/12/2017</td> <td>4/20/2017</td> <td>Each</td> <td>5</td> <td>4</td> </tr> <tr> <td></td> <td>STORD2232</td> <td>4/15/2017</td> <td>4/25/2017</td> <td>Each</td> <td>10</td> <td></td> </tr> </tbody> </table> <p style="text-align: right; margin: 0;">Total <input type="text" value="4"/></p> <p style="margin: 0;">Sort By <input type="text" value="Req Ship Date"/></p> </div>	X	Sales Order	Req Ship Date	Cancel Date	U of M	Qty Remaining	Qty Assigned	X	STORD2241	4/12/2017	4/20/2017	Each	5	4		STORD2232	4/15/2017	4/25/2017	Each	10		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #cccccc;"> <th style="width: 20%;">Field</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>Item Number</td> <td>Displays the Item Number from POP-SOP Linking</td> </tr> <tr> <td>Description</td> <td>Displays the Description from POP-SOP Linking</td> </tr> <tr> <td>Base U of M</td> <td>Displays the Base U of M from POP-SOP Linking</td> </tr> <tr> <td>Remaining Qty</td> <td>Shows the Remaining, un-assigned PO Line quantity in the Base unit of measure</td> </tr> <tr> <td>Customer Class</td> <td>If a Customer Class is selected, the scrolling window will only show sales orders for customers belonging to the selected class.</td> </tr> </tbody> </table>	Field	Function	Item Number	Displays the Item Number from POP-SOP Linking	Description	Displays the Description from POP-SOP Linking	Base U of M	Displays the Base U of M from POP-SOP Linking	Remaining Qty	Shows the Remaining, un-assigned PO Line quantity in the Base unit of measure	Customer Class	If a Customer Class is selected, the scrolling window will only show sales orders for customers belonging to the selected class.
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Scrolling Window	<p>Displays fields from the sales order lines.</p> <ul style="list-style-type: none"> • Cancel Date – Sales Order UDF Date-1 • Qty Remaining is calculated as the Quantity Back Ordered minus the Total Quantity Assigned from other purchase order links. 	
Sort By	<p>Options will include:</p> <ul style="list-style-type: none"> • Requested Ship Date • Cancel Date (SOP UDF Date 1) • Master Number 	
Done	<p>Window closes and POP-SOP Linking redisplay to show the new links.</p>	

NOTE: the scrolling window will also display Customer Number.

NOTE: new links are created immediately in Sales Order Selection, as soon as the line is marked (X), or the line quantity is changed, or Auto-Assign is clicked. This ensures that if two users are working at the same time, Sales Order Line quantities immediately become un-available to another user as soon as they are assigned to a PO.

NOTE: the user will not be allowed to create or edit links to sales orders that are open in Sales Transaction Entry. The system will display a warning if the document a user is attempting to use is open in Sales Transaction Entry.

Linking & Sites: This window will also display the Site of the PO Line, and the Site for each of the SOP Lines. See the more detailed note about this functionality in the **PO Selection** section above.

Receivings Transaction Entry **CCDA**

In Receivings Transaction Entry the SOP-POP Multi-Link module will give the user the ability to allocate quantities from the receipt line to specific sales order lines linked to the PO. From the Receivings Transaction Entry window the user will click the Commitment button to open Linked PO Receiving.

X
Linked PO Receiving

Done

Item Number

Description Qty Received

Base U of M Qty Remaining

Sales Order	Customer ID	Req Ship Date	Remaining Qty	Allocated Qty
ORD2232	AARONFIT0001	5/2/2008	2	2
ORD2240	BLUECT0001	5/6/2008	3	1
ORD2242	AARONFIT0001	5/6/2008	1	0
Total			<input type="text" value="3"/>	

This window will show all of the Sales Order lines linked to the PO Line.

Field	Function
Item Number	Displays Item Number from the Receipt line
Description	Displays Item Description from the Receipt Line
Base U of M	Display the Base Unit of Measure. All quantities are calculated and displayed using the Base Unit of Measure.
Qty Received	Qty received on the current PO Receipt
Qty Remaining	Qty Received minus Total Allocated Qty

<p>Scrolling Window</p>	<p>Displays all sales orders linked to the PO Line that is being received. If a Sales Line is already completely fulfilled (all of its Assigned Qty as been received), it will not appear in Linked PO Receiving. In other words, once the linked sales line quantity is completely fulfilled, it will not appear in this window during subsequent partial receipts of the PO Line.</p> <p>The user can specify how much of the receipt should be allocated to each line. If there is not enough to fulfill all linked sales order, the user can enter partial quantities, or even zero the quantity for some lines.</p> <p>The order of documents in this window was set on the POP-SOP Linking window. By default the system will auto-allocate receipt quantities to sales lines based on their order in this window. If the user does not manually edit the quantities, sales lines will be fulfilled automatically based on the sort order seen here.</p> <p>The user can override these quantities to allocate an amount to any chose sales line.</p> <p>To create new Sales Line Assignments, the user will click the “L” lookup button to open the Sales Order Selection window (described above). After selecting one or more lines in the Sales Line Assignments window, the new lines will be added to the Linked PO Receiving window.</p> <p>NOTE: The Sales Order Selection window builds a link to the PO Line. That link is returned to the Linked PO Receiving window where a specific receipt quantity is assigned to the linked Sales Line.</p>	
<p>The PO Receipt, along with the PO Receipt Linking information can be saved, and retrieved later, before posting.</p> <p>When the PO Receipt is posted, the inventory quantities will appear in GP already allocated. During the posting process, when quantities are allocated to sales lines, those sales lines will be updated with the quantity allocated, causing the Quantity to Back Order to decrease,</p>		

and the Quantity to Invoice to increase. Depending on how the Sales Document Type is configured, this may also increase the Quantity Fulfilled.

To recap, the following will occur when a PO Receipt is posted:

- Decrease Back Ordered Qty on the SOP Line by the allocated quantity on the receipt
- Increase Qty to Invoice on the SOP Line by allocated quantity
- Based on SOP Doc type, the Fulfilled Qty on the SOP Line may be updated
- The inventory records for the received items will be updated to show the correct Quantity Allocated
- The Batch ID on the Sales Order will be changed, and the Batch Totals will be updated accordingly. **Batch ID Change Logic:** new Sales Batches will be created automatically using the Requested Ship Date of the SOP Document being fulfilled. It is assumed that all lines on the document have the same Requested Ship Date. The format of the Batch ID will be YYYYMMDD. Documents will be grouped into batches by week, running Sunday to Saturday. For example, a document with a Requested Ship Date of May 26, 2008 (Monday), would be in a batch for Sunday, May 25, 2008 where the Batch ID is 20080525.
- The SOP-POP Multi-Link Receipt record will be moved to a historical table.

NOTE: SOP-POP Multi-Link will work with both Shipment and Shipment/Invoice receipts.

NOTE: the user will not be allowed to create or edit links to sales orders that are open in Sales Transaction Entry. The system will display a warning if the document a user is attempting to use is open in Sales Transaction Entry.

NOTE: the SOP-POP Multi-Links table will become very large. This module will provide a historical table for the SOP-POP Multi-Links information, but the records cannot be moved to history until the linked sales orders are complete and moved to history, and all lines for any linked purchase orders are also complete and the document is moved to history. For purchase orders, there is a manual process for moving documents to history (Tools >> Routines >> Purchasing >> Remove Completed Purchase Orders). This module will contain a routine for moving SOP-POP Multi-Links to history which will execute automatically after Purchase Orders have been moved to history. However, Acme must be diligent about performing this maintenance routine so that the tables do not become too full of historical data, thus affecting performance.

Moving the link records to historical tables will help keep performance at a good level when dealing with a high transaction level.

Linking & Sites: This window will also display the Site for the PO Line being received.

Item PO-SO Assignment	CCDA																																										
<p>This window will be accessed from Transactions >> Purchasing >> Item PO-SO Assignment.</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <div style="border: 1px solid black; padding: 2px;">Item PO-SO Assignment X</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"> <input type="button" value="Done"/> </div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"> Item Number <input type="text" value="1-A3261-A"/> </div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"> Description <input type="text" value="Multi-Core Processor"/> </div> <table border="1" style="width: 100%; border-collapse: collapse; font-size: 8px;"> <thead> <tr> <th style="width: 5%;"><input checked="" type="checkbox"/></th> <th>PO Number</th> <th>Hold</th> <th>Required Date</th> <th>U of M</th> <th>Qty Avail</th> <th>Qty Assigned</th> </tr> </thead> <tbody> <tr> <td><input checked="" type="checkbox"/></td> <td>PO2080</td> <td></td> <td>4/12/2017</td> <td>Each</td> <td>5</td> <td>4</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>PO2093</td> <td></td> <td>4/15/2017</td> <td>Each</td> <td>10</td> <td></td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse; font-size: 8px; margin-top: 5px;"> <thead> <tr> <th style="width: 10%;"><input type="checkbox"/></th> <th>Sales Order</th> <th>Req Ship Date</th> <th>Cancel Date</th> <th>U of M</th> <th>Qty Required</th> <th>Qty Assigned</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/></td> <td>STDORD2232</td> <td>4/12/2017</td> <td>4/20/2017</td> <td>Each</td> <td>5</td> <td>4</td> </tr> <tr> <td><input type="checkbox"/></td> <td>STDORD2241</td> <td>4/15/2017</td> <td>4/25/2017</td> <td>Each</td> <td>10</td> <td></td> </tr> </tbody> </table> </div> <p>This window will allow to create PO-SO assignments, who might not have access to PO Entry or Sales Transaction Entry.</p> <p>After selecting an Item Number, the top scrolling window will display all Purchase Order Lines for that item that are not fully received. Marking a PO line will cause the bottom window to display all existing links for that PO. To create new links the user will click the Lookup next to Sales Order, which will open the Sales Order Selection window described above.</p> <p>The system will ensure that no two users are working with the same Item Number at the</p>	<input checked="" type="checkbox"/>	PO Number	Hold	Required Date	U of M	Qty Avail	Qty Assigned	<input checked="" type="checkbox"/>	PO2080		4/12/2017	Each	5	4	<input checked="" type="checkbox"/>	PO2093		4/15/2017	Each	10		<input type="checkbox"/>	Sales Order	Req Ship Date	Cancel Date	U of M	Qty Required	Qty Assigned	<input type="checkbox"/>	STDORD2232	4/12/2017	4/20/2017	Each	5	4	<input type="checkbox"/>	STDORD2241	4/15/2017	4/25/2017	Each	10		
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<input type="checkbox"/>	STDORD2241	4/15/2017	4/25/2017	Each	10																																						

same time.

Field	Function
Item Number	User can enter, or Lookup an Item Number
Description	Displays the item's description
PO Scrolling window	No fields are editable. This window allows a user to select a PO line. Selecting a line causes the SO Scrolling window to show any existing links for the selected PO.
SO Scrolling window	Shows existing links for the selected PO. The only editable field is the Qty Assigned. If no quantity has been received for an existing link, the user can break it by selecting Edit >> Delete Row.

NOTE: to build links between documents, neither document can be open by a user. The PO must not be open in Purchase Order Entry, and the Sales Order must not be open in Sales Transaction Entry. The system will display a warning if the document a user is attempting to use is open in an Entry window.

NOTE: the PO scrolling window will also show Promised Ship Date, Current Promised Date. And it will have the ability to sort by either date.

Linking & Sites: This window will also display the Site for the PO Lines and the SOP Lines.

<i>Binary Stream Integration</i>	CCDA
<p>The Binary Stream Document Splitter module can split a sales document lines into one or more new sales documents. This can be done from either Sales Transaction Entry, or Binary Stream’s Document Split Manager window.</p> <p>Binary Stream is modifying their product so that the SOP Line Numbering stays the same after the split. So if the original document has two lines (16384 and 32768) that gets split into two separate documents, one document will have one line (16384) and the other document will also have one line but with line number 32768.</p> <p>The integration will be built with the assumption the line numbering logic described above is already in place. It will NOT check for renumbering of the lines.</p> <p>The SOP-POP Multi-Link module will integrate into Binary Stream’s module to maintain the SOP-POP linking after the split. The links will be maintained when documents are split from either of the two locations above.</p>	



Reporting	CCDA
<p>The SOP-POP Multi-Links table will provide references to the linked sales lines and the linked purchase order lines. Using this information the following reports, or smart lists, could be created:</p> <ul style="list-style-type: none">• Sales Lines that need to be purchased (i.e. not linked to purchase order lines)• Sales Lines that have been purchased (i.e. linked sales lines)• Partially received (i.e. linked sales lines where the Qty Received is not equal to the Qty Linked)• Fully Received (i.e. linked sales lines where the Qty Received equals the Qty Linked) <p>This estimate does not include report writing. Reports can be created separately, on a time & materials basis.</p> <p>The documentation provided with the SOP-POP Multi-Links code will provide information on the tables used.</p>	

Change Request # 1																																									
Description of Change																																									
<p>Description of Need: The current windows in GP (and the ACME custom SOP-POP Linking module) require drilling into each line on a PO or SO to manage the linking ACME has provided a Word document detailing the requirements for a new PO Review window that will show all information about the PO, PO Lines, Linked and Unlinked Sales orders, all in one window, and also allow managing links from within the new window.</p> <p>Description of Solution: A new window will be added to Dynamics GP called PO Review. It will be accessed from Transactions >> Purchasing >> PO Review.</p>																																									
<div style="border: 1px solid black; padding: 5px;"> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"> X PO Review </div> <div style="padding: 5px;"> Done <div style="display: flex; justify-content: space-between; margin-bottom: 5px;"> <div> PO Number <input type="text" value="PO00111"/> </div> <div> Vendor ID <input type="text" value="ACETRAV0001"/> </div> </div> <div style="display: flex; justify-content: space-between;"> <div> Date <input type="text" value="2/9/2009"/> </div> <div> Name <input type="text" value="Ace Travel"/> </div> </div> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr> <th>Item Number</th> <th>Required Date</th> <th>Curr. Promised Date</th> <th>Promised Ship Date</th> <th>Location</th> <th>PO Quantity</th> <th>Qty Remaining</th> <th>Unassigned Orders</th> </tr> </thead> <tbody> <tr> <td>CP123</td> <td>5/1/2009</td> <td>4/25/2009</td> <td>3/1/2009</td> <td>WAREHOUSE</td> <td>500</td> <td>100</td> <td>250</td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr> <th>Sales Order</th> <th>Customer Name</th> <th>Req Ship Date</th> <th>Cancel Date</th> <th>Location</th> <th>SOP Quantity</th> <th>Qty Remaining</th> <th>Qty Assigned</th> </tr> </thead> <tbody> <tr> <td>STDORD2232</td> <td>Aaron Fitz</td> <td>4/12/2017</td> <td>4/20/2017</td> <td>WAREHOUSE</td> <td>10</td> <td>6</td> <td>4</td> </tr> <tr> <td>STDORD2241</td> <td>Fast Pitch</td> <td>4/15/2017</td> <td>4/25/2017</td> <td>NORTH</td> <td>10</td> <td>10</td> <td>0</td> </tr> </tbody> </table> <div style="display: flex; justify-content: flex-end; margin-top: 5px;"> Move Up Move Down </div> <div style="margin-top: 5px;"> Sort By: <input type="text" value="Priority"/> </div> </div> </div>		Item Number	Required Date	Curr. Promised Date	Promised Ship Date	Location	PO Quantity	Qty Remaining	Unassigned Orders	CP123	5/1/2009	4/25/2009	3/1/2009	WAREHOUSE	500	100	250	Sales Order	Customer Name	Req Ship Date	Cancel Date	Location	SOP Quantity	Qty Remaining	Qty Assigned	STDORD2232	Aaron Fitz	4/12/2017	4/20/2017	WAREHOUSE	10	6	4	STDORD2241	Fast Pitch	4/15/2017	4/25/2017	NORTH	10	10	0
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Field	Function
PO Number	User can enter a PO Number, or select one from a Lookup
Date	Displays the PO document date
Vendor ID	Displays the PO Vendor ID
Name	Displays the Vendor name
PO Lines window	This is a "list view" window, similar to SmartList. The columns can be sorted by clicking on the column header, and can also be re-arranged by dragging columns right or left. The window is not editable. When a row is double-clicked the bottom window (Sales Lines) will fill

PO Lines window	<p>This is a “list view” window, similar to SmartList. The columns can be sorted by clicking on the column header, and can also be re-arranged by dragging columns right or left. The window is not editable. When a row is double-clicked the bottom window (Sales Lines) will fill.</p> <p>PO Quantity: this shows the total quantity ordered QTY Remaining: quantity from the PO Line not linked Unassigned Orders: total sales order unlinked quantity for the item.</p> <p>In the example shown here, the PO Line is for 500. Since Qty Remaining is 100, that means 400 are already linked. And, there are 250 units on one or more sales lines that are not linked to any PO line.</p>
SO Lines window	<p>This is a scrolling window where the fields are editable. The “assigned” sales lines will display at the top of the window when the window is sorted by Priority. Other sales order lines for the Item will be arranged by SOP Number.</p> <p>A new link is created by changing the Qty Assigned from zero, and an existing link can be broken by changing the Qty Assigned to zero.</p> <p>Requested Ship Date and Cancel Date come from the SOP Header.</p>
Move UP	Changes the priority of a linked line to a high priority. Move Up/Down will have no effect on an unlinked line.
Move Down	Changes the priority of a linked line to a lower priority.

The SO Lines window will “refresh” after a new link is created, or an existing link is broken. With a new link, it is possible that the user could be towards the bottom of the scrolling window. When this line is added as a new link, it will be assigned the next available Priority for linked lines, the window must then refresh to display the linked line in its new position with an assigned Priority. This will cause the window to “lose focus” and the scrolling position will be reset to the top.



CHANGE REQUEST			
Client Name		Date	
Project Name		Version	
Change Request # 2	Auto PO Linking (SOP Transfer)		
Description of Change			

CHANGE REQUEST	
Change Request #3	Auto PO Linking (PO Release)
Description of Change	
<p>Description of Need: When a PO is printed the PO Status changes to Released. When a PO Status changes to Released, ACME would like to have it automatically linked to existing Sales Orders.</p> <p>Some customers should be excluded from auto-linking.</p> <p>The linking should be done using the following criteria:</p> <ol style="list-style-type: none"> 1) Link PO Lines to Sales Orders based on the Sales Document’s Master Number, sorting Master Number from Lowest to Highest (assuming item numbers match, available quantity to be linked, and so on). <ol style="list-style-type: none"> a. Sales lines will be selected: <ol style="list-style-type: none"> i. Regardless of the Site ID on the SOP Line if the line has no existing links ii. Based on the Item & Site if the SOP Line already has links 2) Customer Documents will be excluded from Auto-Linking if the Customer is On Hold <p>Description of Solution: The setup provides the ability to enable/disable auto-linking when a PO is released. Setup also provides the ability to enable/disable “Customer ID Exclusion”, which will prevent some Sales Orders from being included in the auto-linking based on the Customer ID on those documents.</p> <p>Auto-linked POs will be inserted into the PO Change Validation window.</p> <p>When the PO status changes to Released, if enabled, the auto-linking process will automatically</p>	

execute, and attempt to link PO Lines to available Sales Order lines. Where multiple SO lines exist that could be linked, they will be linked in order of Master Number with the smaller Master Number documents handled first.

Sales Lines will be included if they have no existing links and no Quantity Allocated in the current SOP Line Site. In this case, if needed, the auto-linking will change the Site on the SOP Line to match the PO Line.

Sales Lines will also be included if they have existing links, and the SOP Line Site matches the PO Line Site.

The process will repeat, allocating inventory to sales lines, until the PO Line(s) are completely linked to available SO Lines, or there are no more SO Lines to link.

Depending on the Setup Options, a Log Report will print after auto-linking to show how each PO Line was linked, the total line quantity linked, and the quantity remaining unlinked.



CHANGE REQUEST	
Change Request # 4	
Description of Change	
<p>ACME requests the following changes.</p> <ol style="list-style-type: none"> 1) Add the ability to change the site during PO Receiving for PO Lines that have SO Links. The current design allows changing the site for unlinked quantities only. <p>Change #1 The software will be modified to allow changing the site during receiving for PO lines with SO commitments, only if:</p> <ol style="list-style-type: none"> 1. The entire PO Line quantity is being received, and 2. Any linked sales lines are linked ONLY to the PO Line being received. <p>If the PO Line is partially received, and it has SO Line links, a site change will NOT be allowed. If any of the SO Lines linked to the PO Line have more than one link (i.e. they are linked to a different PO Line), the site change will not be allowed.</p> <p>If the change can proceed, the change in Site will also be applied to all of the linked sales lines so that fulfillment will occur out of the correct site.</p>	